WHAT IS CLAIMED IS:

1. An optical waveguide element comprising:

a first waveguide and a second waveguide located adjacent to each other for mode coupling;

a first dummy waveguide extending from an one end of the second waveguide;

a reflector installed on an end surface of the first dummy waveguide; and

a second dummy waveguide located adjacent to the first dummy waveguide for mode coupling,

wherein optical signals progressing from the second dummy waveguide to the first dummy waveguide attenuate while sequentially passing through the reflector and the second dummy waveguide.

2. The optical waveguide element as claimed in claim 1, further comprising:

a directional coupler;

an input waveguide extending from one end of the first waveguide, and enabling optical signals to be input to the directional coupler; and

an output waveguide extending from another end of the second waveguide,

wherein the optical signals input through the input waveguide are coupled to the second waveguide in the directional coupler and output to the output waveguide.

3. The optical waveguide element as claimed in claim 1, further comprising:

a directional coupler;

an input waveguide extending from one end of the first waveguide, and enabling optical signals to be input to the directional coupler;

an output waveguide extending from other end of the first waveguide; and

a light source coupled to an end surface of the output waveguide,

wherein optical signals generated from the light source pass through the output waveguide and are output to the input waveguide through the directional coupler.

4. The optical waveguide element as claimed in claim 1, further comprising:

a directional coupler;

an output waveguide extending from other end of the second waveguide; and

a light source coupled to an end surface of the output waveguide,

wherein optical signals generated from the light source pass through the output waveguide and are coupled to the first waveguide through the directional coupler.

5. The optical waveguide element as claimed in claim 1, wherein an end surface of the second dummy waveguide is terminated in such a way so as to be inclined with respect to a longitudinal direction of the second dummy waveguide.

6. The optical waveguide element as claimed in claim 1, further comprising a curved waveguide extending from an end surface of the second dummy waveguide.

7. The optical waveguide element as claimed in claim 7, wherein an photodetector is coupled to an end surface of the output waveguide.

8. The optical waveguide element as claimed in claim 1, further comprising:

a directional coupler;

an input waveguide extending from one end of the first waveguide, and enabling optical signals to be input to the directional coupler;

an output waveguide extending from other end of the first waveguide;

a reflector installed on an end surface of the output waveguide;

a third waveguide extending from the reflector; and

a light source installed on an end surface of the third waveguide,

wherein optical signals generated from the light source sequentially pass through the third waveguide, the reflector, the output waveguide and the directional coupler and are outputted to the input waveguide through the directional coupler.

9. The optical waveguide element as claimed in claim 1, further comprising:

a directional coupler;

an input waveguide extending from one end of the first waveguide, and enabling optical signals to be input to the directional coupler;

an output waveguide extending from other end of the first waveguide;

a reflector installed on an end surface of the output waveguide;

a third waveguide extending from the reflector; and

an photodetector installed on an end surface of the third waveguide,

wherein optical signals generated from the light source sequentially pass through the directional coupler, the output waveguide, the reflector and the third waveguide and are input to the input waveguide through the directional coupler.

10. The optical waveguide element as claimed in claim 1, further comprising:

an output waveguide extending from other end of the second waveguide; and

a light source coupled to an end surface of the output waveguide,

wherein optical signals generated from the light source are coupled to the first waveguide through the directional coupler.

11. An optical waveguide element comprising:

a first waveguide and a second waveguide juxtaposed to each other for mode coupling;

a first waveguide portion extending from an one end of the second waveguide;

a reflector installed on an end surface of the first waveguide portion; and

means for removing optical signals passing through the first waveguide portion.